

# Nico D'Cotta

## Platform Software Engineer

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### EXPERIENCE

06/2020 – today  
part time

#### Platform engineer

Blockchain.com

Performing production incident response - with **PagerDuty**

Shipping under time constraints on several large **JVM** codebases that power the cryptocurrency exchange and wallet

Scaling up distributed systems with a microservices event-driven architecture

Engineering tooling, like **Gradle** plugins, in order to facilitate development and allow for faster iterations

06/2020 –  
10/2020

#### Software Engineer Intern

Emit, Inc.

Four-person startup where I worked closely with co-founders to pivot into time data analytics.

Developed a data processing pipeline and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**

### EDUCATION

2018 – 06/2022

#### MEng Computer Science – *currently First Class Honours*

Imperial College London

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling. Additional Business School modules: Finance & Financial Markets, Business Strategy, Project Management.

2015-2018

#### French Baccalaureate (S-SI) – *Highest Honours*

French Lycée of Madrid

High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.

Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

### PROJECTS

see my full portfolio at [nico.dcotta.eu](https://nico.dcotta.eu)

AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS, TS

#### DJStreamr, collaborative streaming service for DJs

🌐 [djstreamr.com](https://djstreamr.com)

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

Kotlin, JVM bytecode, ARM11 assembly

#### WACC, multiplatform compiler

🐙 [cottand/WACC](https://cottand/WACC)

Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack allocated primitives, and heap-allocated arrays and pairs.

C, x86 assembly

#### PintOS, UNIX-like OS

🌐 [pintos-os.org](https://pintos-os.org)

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

Unity, C#

#### ICHack'19 (Hackathon) – Best Mobile App Award

🐙 [cottand/ICHack2019](https://cottand/ICHack2019)

AR-powered teaching app in that brings interactive 3D models to students' phones.

Typescript, VueJS, Python

#### IVANN, neural-network building GUI

🌐 [IVANN website](https://ivann.website)

Interactive code generator (for Python Tensorflow) to empower research by abstracting away from code, written in Typescript with VueJS

Elixir, Paxos

#### Multi-Paxos

🐙 [cottand/multi-paxos](https://cottand/multi-paxos)

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper Paxos Made Moderately Complex

### LANGUAGES

**English** - proficient (C2 certification)

**Spanish** - native

**French** - proficient

**Portuguese** - rudimentary

### HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!

### TECHNOLOGIES

**Proficient in** JVM (Kotlin, Java), Gradle

**Experience with** AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway)

Python, C, Haskell, Typescript, Elixir

gRPC + protobufs, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS